

[10537/68]

EXPEDITED PROCEDURE REPLY UNDER 37 C.F.R. § 1.116 GROUP ART UNIT 3683

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s)

Christian LAUBLE et al.

Serial No.

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September 27, 2000

For

VIBRATION DAMPER FOR A TUBULAR DRIVE SHAFT

Examiner

Melody M. Burch

Art Unit

3683

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Commissioner for Patents Washington, D.C. 20231

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REPLY UNDER 37 C.F.R. §1.116

SIR:

In response to the Final Office Action of January 29, 2003, kindly amend the above-captioned application as follows:

IN THE CLAIMS:

Please amend claims 9, 11 and 17 to 20, without prejudice, as follows:

- 9. (Four Times Amended) A vibration damper for a rotatable tubular propeller shaft in the drive train of a motor vehicle, the vibration damper comprising:
- a sleeve arranged in the shaft and rotatable with the shaft, the sleeve defining a radial and circumferential direction;
 - a mass body mounted concentrically in the sleeve;
- a plurality of rubber spring elements for mounting the mass body to the sleeve; and
- a plurality of flexible stop elements disposed circumferentially between each adjacent pair of spring elements and disposed between the mass body and the sleeve to define a discrete space to limit a vibration travel of the mass body at least in the radial direction, wherein a contact surface of each stop element extends over a larger circumferential angle than the spring elements and than between each stop

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element and each adjacent rubber spring element, such that each stop element occupies a large portion of a space between the mass body, the spring elements and the sleeve.

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- 11. (Thrice Amended) A vibration damper for a rotatable tubular propeller shaft in the drive train of a motor vehicle, the vibration damper comprising:
- a sleeve arranged in the shaft and rotatable with the shaft, the sleeve defining a radial and circumferential direction;
 - a mass body mounted concentrically in the sleeve;
- a plurality of rubber spring elements for mounting the mass body to the sleeve; and

wherein at least one the mass body and the sleeve at least partially form, in circumferentially opposite regions between the rubber spring elements, a plurality of stop elements configured to limit a vibration travel of the mass body in at least the radial direction, wherein the stop elements define discrete spaces and wherein a contact surface of each stop element extends over a larger circumferential angle than the spring elements and than between each stop element and each adjacent rubber spring element.

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- 17. (Four Times Amended) A vibration damper for a rotatable tubular propeller shaft in the drive train of a motor vehicle, the vibration damper comprising:
- a rotatable propeller shaft, the propeller shaft defining a radial and a circumferential direction;
 - a mass body arranged concentrically\in the propeller shaft;
- a plurality of rubber spring elements for mounting the mass body to the propeller shaft; and
- a plurality of stop elements configured to limit a vibration travel of the mass body at least in the radial direction, the stop elements being disposed between the mass body and the propeller shaft and circumferentially between each adjacent pair of rubber spring elements so as to define a discrete space, the stop elements including at least one of metal or rubber.
- 18. (Thrice Amended) A vibration damper for a rotatable tubular propeller shaft in the drive train of a motor vehicle, the vibration damper comprising:

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a rotatable propeller shaft defining a radial and a circumferential direction; a mass body arranged concentrically in the propeller shaft; and a plurality of rubber spring elements for mounting the mass body to the propeller shaft;

wherein at least one of the mass body and the propeller shaft at least partially form, in circumferentially opposite regions between the rubber spring elements, a plurality of stop elements configured to limit a vibration travel of the mass body in at least the radial direction, such that a vibration travel in a central compression direction of the plurality of rubber spring elements is insignificantly greater than in the central compression direction of the plurality of stop elements.

- 19. (Thrice Amended) A vibration damper for a rotatable tubular propeller shaft in the drive train of a motor vehicle, the vibration damper comprising:
 - a rotatable propeller shaft defining a radial and a circumferential direction;
 - a mass body arranged concentrically in the propeller shaft; and
- a plurality of rubber spring elements for mounting the mass body to the propeller shaft;

wherein the mass body at least partially forms, in circumferentially opposite regions between the rubber spring elements, a plurality of stop elements configured to limit a vibration travel of the mass body in at least the radial direction, such that a vibration travel in a central compression direction of the plurality of rubber spring elements is insignificantly greater than in the central compression direction of the plurality of stop elements.

- 20. (Thrice Amended) A vibration damper for a rotatable tubular propeller shaft in the drive train of a motor vehicle, the vibration damper comprising:
 - a rotatable propeller shaft defining a radial and a circumferential direction;
 - a mass body arranged concentrically in the propeller shaft; and
- a plurality of rubber spring elements for mounting the mass body to the propeller shaft;

wherein the propeller shaft at least partially forms, in circumferentially opposite regions between the rubber spring elements, a plurality of stop elements configured to limit a vibration travel of the mass body in at least the radial direction, such that a vibration travel in a central compression direction of the plurality of

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